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Secretary
Federal Communications Commission
445 12th Street SW
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Subject: Waiver of part 25 licensing requirement for receive-only Earth stations operating with the Galileo radionavigation-satellite service – IB Docket No. 17-16

On September 28, 2017, Dominic Hayes (via teleconference) and Jean-Luc Bald of the European Commission (EC) met with Ronald Repasi, Paul Murray, and Patrick Forster of the Office of Engineering and Technology, Troy Tanner, Jose Albuquerque, Karl Kensinger, Sankar Persaud, and Merissa Velez of the International Bureau, and Aalok Mehta of the Wireless Telecommunications Bureau, to discuss the status of the request for waiver under consideration in IB Docket No. 17-16.

By way of introduction, the EC recalled the timeline it had followed in its application, via the U.S. Government, for a waiver request of the Federal Communications Commission's part 25 licensing requirement for receive-only Earth stations operating with the Galileo radionavigation-satellite service. In December 2014, Galileo's Schedule S information was submitted to the U.S. State Department (in turn liaised with the National Telecommunication and Information Administration), then submitted to the FCC in January 2015 and subsequently opened to public comment in January 2017.

The EC provided the Commission with information regarding the activities referred to in the Joint Reply Comments of the EC and Inmarsat Inc. filed in IB Docket No. 17-16 on 23 March 2017. It informed the Commission that the Inmarsat testing campaign is currently focused on observation of Galileo signal characteristics, with the testing of possible receiver impacts expected to take place later this year. The EC stated that it had indicated to Inmarsat that it was not possible to modify the satellite design of the current Galileo system, but it had agreed with Inmarsat that if it is demonstrated that Galileo emissions cause interference to Inmarsat receivers resulting in an impact to Inmarsat service that the two parties would coordinate bilaterally in order to minimize the impacts to Inmarsat services as soon as is feasible within the constraints of the European Union's international obligations. The EC stated that this related to the "Galileo 2nd Generation" system evolution and that the international obligations primarily concerned the "Agreement on the promotion, provision and use of Galileo and GPS satellite-based navigation systems and related applications" with the United States of America.

The EC clarified that the current Galileo operations are consistent with the power levels provided in the Schedule S submitted with the waiver request. The higher power levels for the E1 and E6 signals specified in the "Galileo-2" ITU filings (for which ITU coordination with GPS, Compass, IRNSS and QZSS is concluded) define a maximum envelope of potential future emissions for Galileo satellites as part of the "Galileo 2nd Generation" system evolution. Any such power increase would be subject to European Union member state agreement and might not be at the maximum level defined in the filings. Further, it is expected to take another 10 years before the Galileo system uses satellites at power levels beyond those in the current system (in some accelerated scenarios, there is potential for test satellite deployment around 2025). It is also understood that future action by the Commission may be required in connection with future higher power operations.

Concerning the E6 signals, the EC indicated its understanding that long range radars in the band have developed effective technical and operational mitigation methods such that the Galileo signals will not result in harmful interference to radar system operations. Galileo receivers themselves will use "pulse blanking" techniques to mitigate expected interference from radar pulse emissions. Present E6 operations are limited to the Galileo Public Regulated Service[1] which is currently only available to government-authorized users of the European Union Member States. The Galileo Commercial Service[2], also using a signal in E6, will be offered in the future and is anticipated to be provided for professional, high precision and authentication uses.

The EC and the Commission also discussed the allocation status in the United States of non-Federal RNSS and related expectations concerning interference protection. The European Commission indicated that Galileo receivers can co-exist with the current interference environment resulting from MSS operations below 1559 MHz.

Finally, given the benefits of the availability of Galileo signals which are interoperable and compatible with GPS, the European Commission expressed its interest in a timely conclusion of the proceeding and its view that the present discussion was a useful step towards that end.

For and on behalf of

The European Commission

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[1] Article 2(4)(d) of Regulation (EU) No 1285/2013 of the European Parliament and of the Council of 11 December 2013

[2] Article 2(4)(c) of Regulation (EU) No 1285/2013 of the European Parliament and of the Council of 11 December 2013